

Hi there! Hola!  
Salut! Hello!  
Hallo! Alo!  
I'm Ana ☺

Ana García del Molino, PhD

*I specialize in multimedia content analysis and understanding for tasks such as classification, personalization, risk detection and video summarization.*

*After a decade in Asia, my next adventure shall be back in Barcelona. But not before an exciting overlanding road trip across central Asia!*

🌐 [garciadelmolino.github.io](https://garciadelmolino.github.io)  
📧 [GarciaDelMolino](mailto:GarciaDelMolino)  
✉ [a.g.delmolino@gmail.com](mailto:a.g.delmolino@gmail.com)  
☎ (+65) 8602 1449  
📞 (+34) 675288835

## Professional Experience



📍 ByteDance - TikTok, Singapore  
📅 Sept 2020-Today  
🕒 Computer Vision Scientist

**Content Understanding for TikTok services.**  
**ML Ops to support both Ecology and Business Integrity.**  
**Mentoring of engineering interns and co-supervision of PhD candidates.**

Responsible of content tagging services in TikTok Live:

- Technical counterpart of Live tagging Product Manager to define the vision and new features for the product.
- Technical leadership in the development and operations of online real-time services.
- Point of contact for the infrastructure team to ensure smooth integration with new platform releases.

Highlights:

- Model performance reporting with real-time dashboards for effective communication with the product team.
- Continuous improvement of the model design, training and benchmarking to increase recall by at least 5-10% with a target of 80% precision.
- Optimization of processes for data collection and labelling, resulting in the daily selection of 50k labelling tasks with a ~95% positive ratio.
- Automated model iteration, resulting in improved performance for critical business requirements, increasing F1 score from 70% to 95%.

Responsible of industry detection for Business Integrity:

- Owner of critical business services to assess integrity risks. Direct communication with business stakeholders to define new business requirements.
- Continuous communication with upstream teams to ensure data readiness in fast-paced environments
- Responsible for code high availability and fast response during outages.
- Creation of reusable artifacts to enable fast deployments and new feature adoptions

Highlights:

- Model design, training and benchmarking to support new business requirements. Accuracy >75% for 800+ industries.
- Data cleaning, deduplication and aggregation across multiple sources, implementing a weekly automated collection of ~10k relevant training samples from the platform's moderation teams.
- Infrastructure code development and maintenance for online real-time services.

Multimodal Classification · ML Ops · Real-Time Services · Async Processes and Development · Data Analytics and Dashboarding · Scheduled Data Processing

Python · TensorFlow · PyTorch · HSQL · PySpark · Golang · Redis · Kafka · JavaScript



📍 BIGO Tech., Singapore  
📅 April 2019-Aug 2020  
🕒 Sr. AI Algorithm Engineer

DCNNs to predict PCA parameters for graphic 3D modeling.

GANs for face expression manipulation.

DCNN-based autoencoders and U-Nets for image and video refinement and style transfer.

VAE · GAN · Face Landmark Detection and Tracking · Style Transfer · 3D Rendering

Python · TensorFlow · PyTorch · C# · Blender



📍 I2R, A\*STAR, Singapore  
📅 2014-March 2019

🎓 Ph.D. Candidate  
👤 Supervised by Joo-Hwee Lim

📖 **Visual Understanding and Personalization for an Optimal Recollection Experience**

- 🔗 📖 Modeling of lifelog photo-stream sequences using LSTM networks, to detect daily activities and learn associations between life events.
- 🔗 📖 Use of conditional random fields and probabilistic inference for interactive video summarization with diversity and query-driven objectives.
- 📖 Use of image quality analysis and semantic retrieval techniques for query-based lifelog summarization.

Object Classification · Activity Recognition · Facial Recognition · Transfer Learning · Spatio-Temporal Learning with LSTM · Episodic Memory

MATLAB · Caffe · Python · TensorFlow · C++ · Prototyping



📍 gifs.com, Zurich  
📅 Summer 2017  
🕒 Research Consultant

- 📖 Use of a deep ranking model with personalizable input to customize the highlight detection in videos.

Action Classification · Recommendation Systems · Pattern Recognition · Action Understanding

Python · TensorFlow · DataFrames · SQL · Prototyping

📍 National Inst. of Informatics, Tokyo  
📅 2013  
🕒 Research Intern

Extension of the Bag of Words instance search technique by geometric coding and quantization error compensation.

Object Recognition and Retrieval · SURF & SIFT Descriptors · Hamming Embedding · Bag of Words

MATLAB · C++ · OpenCV

### PhD. in Cognitive Systems and Visual Computing



📍 School of Computer Science and Engineering  
📅 2015-2019

### BSc. and MSc. in Telecomm Engineering



📍 TelecommBCN (ETSETB)  
📅 2008-2013

🇪🇸 Native

🇪🇸 Native

🇬🇧 Fluent

🇫🇷 Proficient

---

## Honors and Awards

---



Obra Social "La Caixa" 📅 2014

Private fellowship to support postgraduate studies in North America and Asia-Pacific.



SINGA Scholarship 📅 2015

Award given by A\*STAR to international students to pursue their PhD at a Singapore University.

---

## Publications

---

- 📄 Qianli Xu, Fen Fang, **Ana Garcia del Molino**, Vigneshwaran Subbaraju, and Joo-Hwee Lim. 2021. Predicting Event Memorability from Contextual Visual Semantics. In *Advances in Neural Information Processing Systems*.
- 📄 **Ana Garcia del Molino**, Joo-Hwee Lim, and Ah-Hwee Tan. 2018. Predicting Visual Context for Unsupervised Event Segmentation in Continuous Photo-streams. In *Proceedings of the 26th ACM international conference on Multimedia (MM '18)*.
- 📄 **Ana Garcia del Molino** and Michael Gygli. 2018. PHD-GIFs: Personalized Highlight Detection for Automatic GIF Creation. In *Proceedings of the 26th ACM international conference on Multimedia (MM '18)*.
- 📄 **Ana Garcia del Molino**, Xavier Boix, Joo-Hwee Lim, and Ah-Hwee Tan. 2017. Active Video Summarization: Customized Summaries via On-line Interaction with the User. In *AAAI Conference on Artificial Intelligence*.
- 📄 **Ana Garcia del Molino**, Cheston Tan, Joo-Hwee Lim, and Ah-Hwee Tan. 2017. Summarization of Egocentric Videos: A Comprehensive Survey. In *IEEE Transactions on Human-Machine Systems*, 47(1).
- 📄 **Ana Garcia del Molino**, Bappaditya Mandal, Jie Lin, Joo Hwee Lim, Vigneshwaran Subbaraju, Vijay Chandrasekhar. 2017. VC-I2R@ImageCLEF2017: Ensemble of Deep Learned Features for Lifelog Video Summarization. In *CLEF working notes*.
- 📄 Qianli Xu, Vigneshwaran Subbaraju, **Ana Garcia del Molino**, Jie Lin, Fen Fang, Joo-Hwee Lim, Liyuan Li, Vijay Chandrasekhar. 2017. Visualizing Personal Lifelog Data for Deeper Insights at the *NTCIR-13 Lifelog-2 Task*.
- 📄 Jie Lin, **Ana Garcia del Molino**, Qianli Xu, Fen Fang, Vigneshwaran Subbaraju, Joo-Hwee Lim, Liyuan Li, Vijay Chandrasekhar. 2017. VCI2R at the *NTCIR-13 Lifelog-2 Lifelog Semantic Access Task*.
- 📄 **Ana Garcia del Molino**, Qianli Xu, Joo-Hwee Lim. 2016. Describing lifelogs with convolutional neural networks: A comparative study. In *Proceedings of the first Workshop on Lifelogging Tools and Applications*.
- 📄 **Ana Garcia del Molino**. 2016. First Person View Video Summarization Subject to the User Needs. In *Proceedings of the 24th ACM international conference on Multimedia (MM'16)*.
- 📄 **Ana Garcia del Molino**, Bappaditya Mandal, Liyuan Li, Lim Joo Hwee. 2015. Organizing and retrieving episodic memories from first person view. In *IEEE International Conference on Multimedia & Expo Workshops (ICMEW)*.

(Check all my publications in my [Scholar](#) profile)